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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:	:	WAYNE MILTON SCHOTT
Serial No.	:	09/973,338
Filed	:	October 9, 2001
For	:	BASS REFLEX ACOUSTICAL ENCLOSURE WITH TWO SPEAKERS TO ENHANCE ACOUSTICAL PERFORMANCE
Group No.	:	2837
Examiner	:	Renata D. McCloud

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2. Check in the amount of $330.00 for the Appeal Brief filing fee; and
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of	:	WAYNE MILTON SCHOTT
United States Serial No.	:	09/973,338
Filed	:	October 9, 2001
Title	:	BASS REFLEX ACOUSTICAL ENCLOSURE WITH TWO SPEAKERS TO ENHANCE ACOUSTICAL PERFORMANCE
Art Group Unit	:	2837
Examiner	:	Renata D. McCloud

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

APPELLANT'S BRIEF UNDER 37 C.F.R. §1.192

This brief is in furtherance of the Notice of Appeal filed in this application on August 19, 2003. The fees required under 37 C.F.R. § 1.17(c), and any required petition for extension of time for filing this appeal brief and fees for any such extension of time, are dealt with in the accompanying transmittal letter.

This brief is transmitted in triplicate (37 C.F.R. § 1.192(a)).

This brief contains these items under the following headings, and in the order set forth below (37 C.F.R. § 1.192(c)):

I REAL PARTY IN INTEREST

II RELATED APPEALS AND INTERFERENCES

III STATUS OF CLAIMS

IV STATUS OF AMENDMENTS

V SUMMARY OF INVENTION

VI ISSUES

VII GROUPING OF CLAIMS

VIII ARGUMENTS

A. ARGUMENTS - REJECTIONS UNDER 35 U.S.C. § 103

B. ARGUMENTS - FINAL REJECTION OF CLAIMS

IX APPENDIX OF CLAIMS INVOLVED IN THE APPEAL

The final page of this brief before the beginning of the Appendix of Claims bears the attorney's signature.

I REAL PARTY IN INTEREST (37 C.F.R. § 1.192(c)(1))

The real party in interest in this appeal is Philips Electronics North American Corporation.

II RELATED APPEALS AND INTERFERENCES (37 C.F.R. § 1.192(c)(2))

With respect to other appeals or interferences that will directly affect, or be directly affected by, or have a bearing on the Board=s decision in this appeal, there are no such appeals or interferences.

III STATUS OF CLAIMS (37 C.F.R. § 1.192(c)(3))

The status of the claims in this application are:

A. TOTAL NUMBER OF CLAIMS IN APPLICATION

There are twenty (20) claims in the application (Claims 1-20).

B. STATUS OF ALL THE CLAIMS

1. Claims previously canceled: NONE.

2. Claims withdrawn from consideration but not canceled: NONE.

3. Claims pending: Claims 1-20.

4. Claims allowed: NONE.

5. Claims rejected: Claims 1-20.

C. CLAIMS ON APPEAL

There are twenty (20) claims on appeal. The claims are Claims 1-20.

IV STATUS OF AMENDMENTS (37 C.F.R. § 1.192(c)(4))

Claims 1-20 were finally rejected in an Office Action dated May 23, 2003. The Appellant then timely filed a proposed amendment on July 7, 2003 in accordance with 37 C.F.R. § 1.116 and requested an Advisory Action. The proposed amendment of July 7, 2002 amended Claims 2, 4, 6, 8, 10, 13, 15, 16, 18 and 20. In an Advisory Action dated July 18, 2003 the Examiner refused to enter the proposed amendment of July 7, 2003 and continued to reject Claims 1-20.

V SUMMARY OF INVENTION (37 C.F.R. § 1.192(c)(5))

The Appellant's invention comprises a bass reflex acoustical enclosure 300 having an internal speaker 350 (Specification Page 8, Line 19 to Page 9, Line 3; Figure 3) mounted within a partitioning wall 320 between a first chamber 330 and a second chamber 340 of the acoustical enclosure 300 (Specification Page 9, Lines 4-12). In one advantageous embodiment of the invention, an internal vent 380 connects the first chamber 330 and the second chamber 340 of the acoustical enclosure 300 (Specification Page 9, Line 18 to Page 10, Line 3; Figure 3). The apparatus 300 of the present invention also has an external speaker 360 mounted within an external wall 370 of the first chamber 330 (Specification, Page 9, Lines 13-17; Figure 3). An external vent 395 allows air from the second chamber 340 to have access to the air outside the acoustical enclosure 300 (Specification, Page 10, Lines 4-12; Figure 3). The internal speaker 350 and the external speaker

360 are electrically coupled in phase (Specification Page 8, Line 19 to Page 9, Line 3; Figure 3). The operation of the internal speaker 350 and the external speaker 360 provides a low frequency response range for the acoustical enclosure down to approximately thirty Hertz (30 Hz) (Specification Page 8, Line 19 to Page 9, Line 3; Figure 3).

VI ISSUES (37 C.F.R. § 1.192(c)(6))

A. Whether Claims 1-20 are unpatentable under 35 U.S.C. § 103(a) as being obvious over United States Patent No. 2,688,373 of *H.F. Olson* (hereafter, "*Olson*") in view of United States Patent No. 5,177,329 of *Klayman*.

B. Whether the Examiner erred in finally rejecting Claims 1-20 on May 23, 2003.

C. Whether the Examiner erred in refusing to enter Appellant's proposed amendment dated July 7, 2003.

VII GROUPING OF CLAIMS (37 C.F.R. § 1.192(c)(7))

Claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Olson* in view of *Klayman*. For purposes of this appeal, the pending claims will be grouped together as follows:

Group A - Claims 1-20 (all pending rejected claims); and

Group B - Claims 2, 4, 6, 8, 10, 13, 15, 16, 18, and 20.

Groups A and B stand or fall independently.

VIII ARGUMENTS

A. ARGUMENTS - Rejections under 35 U.S.C. § 103 (37 C.F.R. § 1.192(c)(8)(iv)):

In the Office Action of May 23, 2003 the Examiner finally rejected Claims 1-20 under 35 U.S.C. § 103(a) as being obvious over *Olson* in view of *Klayman*. The Appellant respectfully traverses the Examiner's position that the Appellant's invention is obvious in view of the *Olson* reference and the *Klayman* reference.

Section 103(a) provides that "A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art of such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made."

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the appellant to produce evidence of nonobviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993).

If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the appellant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference (or references when combined) references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on appellant's disclosure. MPEP § 2142.

For the reasons set forth below the Appellant respectfully submits that the Patent Office has not established a *prima facie* case of obviousness with respect to Claims 1-20 of the Appellant's invention. In rejecting Claim 1 and Claim 9 the Examiner stated:

> Claims 1 and 9: H. F. Olson teaches an acoustical enclosure comprising a speaker box comprising walls that enclose an acoustic chamber (e.g. Fig. 4, #15), a partition coupled to the interior surfaces of the speaker box that divides the chamber into first and second chambers (e.g. Fig. 4, # 21), a first speaker mounted within the partition in which the front of the speaker has access to the first chamber and the back portion of the speaker has access to the second chamber (e.g. Fig. 4, # 33), and a second speaker mounted in one of the walls enclosing the chamber wherein a front portion of the second speaker has access to the air outside of the speaker box, and the back portion of the second speaker has access to the second

> chamber (e.g. Fig. 4, #29), and referring to claim 9, a second speaker enhancing the acoustical performance of the acoustical chamber of the enclosure (e.g. Column 8:26-40).
>
> However, it is unclear if H. F. Olson teaches (a) at least one wall enclosing the acoustic chamber comprising portions forming an external vent to the second chamber or (b) the second speaker enhancing the acoustical performance of the acoustical chamber of the enclosure by extending a range of low frequency response to 30 Hz. Klayman teaches this (a): (e.g. Fig. 1, # 20) and (b): (e.g. Column 2:55-60).
>
> It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the enclosure taught by H. F. Olson to include an external vent to the second chamber and the second speaker enhancing the acoustical performance of the acoustical chamber of the enclosure by extending a range of low frequency response to 30 Hz as taught by Klayman. The advantage of this would be an acoustic enclosure with decreased destructive interference and improved low frequency sound production. (May 23, 2003 Office Action, Pages 2-3).

The Examiner made a similar rejection of Claim 11 on Pages 3-4 of the May 23, 2003 Office Action. The Appellant agrees that the *Olson* reference does not disclose the use of an external vent to a second chamber of an acoustical enclosure, and does not disclose the second speaker enhancing the acoustical performance of the acoustical chamber of the enclosure by extending a range of low frequency response to thirty Hertz (30 Hz). The Appellant notes that the *Olson* reference is not concerned with a frequency range that extends to thirty Hertz (30 Hz). The *Olson* reference discusses the use of a second speaker in a frequency range of fifty Hertz (50 Hz) to three hundred Hertz (300 Hz). This is a range considerably above the thirty Hertz (30 Hz) lower limit frequency of the present invention. *Olsen* states: "In the example referred to above, over the frequency range from 50 to 300 cycles per second, the acoustical impedance presented to the back of the large loudspeaker is practically the same as that of a very large cabinet." (*Olson*, Column 8, Lines 44-48). The *Olson* device is directed to providing a small speaker cabinet that is acoustically equivalent to a large speaker cabinet. The *Olson* device is not concerned with extending the low

frequency range of a speaker system to a frequency of thirty Hertz (30 Hz). The lower limit for the *Olson* device is fifty Hertz (50 Hz).

The Appellant respectfully traverses the Examiner's assertion that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the enclosure taught by *Olson* to include an external vent to the second chamber and using the second speaker to enhance the acoustical performance of the acoustical chamber of the enclosure by extending a range of low frequency response to thirty Hertz (30 Hz) as taught by *Klayman*.

First, the supposed motivation to obtain "an acoustic enclosure with decreased destructive interference and improved low frequency sound production" is very general and does not specifically suggest combining the teachings of the *Olson* reference with the teachings of the *Klayman* reference. There must be some suggestion or motivation, either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art, to modify a reference or to combine reference teachings. The desire to obtain "an acoustic enclosure with decreased destructive interference and improved low frequency sound production" is too general and vague to provide the requisite motivation to modify a reference or to combine reference teachings. *Olson* does not discuss the concept of reducing destructive interference.

The *Klayman* device is a low frequency loud speaker system comprising a folded air column. The folded air column requires a very large enclosure to achieve a resonant frequency of thirty Hertz (30 Hz). "Thus, for a 30 hertz resonant frequency the total length of the air column, including column section 28 from the speaker to end wall 14 and the length of the column 30 from the end wall 30 to the aperture 20 is somewhat greater than nine feet." (*Klayman*, Column 2, Lines 64-68)

(Emphasis added). "The folded air column 28, 30 causes the system to act like an organ pipe that is closed at one end and opened at the other." (*Klayman*, Column 3, Lines 1-3) (Emphasis added). The *Klayman* system can only reach a low thirty Hertz (30 Hz) frequency by using a very large structure like an organ pipe.

Further, the *Klayman* system is not designed for high frequencies. "The described system is not intended for use above very low frequencies but can be modified for such use." (*Klayman*, Column 4, Lines 23-24) (Emphasis added). The modification that *Klayman* refers to (shown in Figure 2 of *Klayman*) provides a system that has two resonant frequencies. For example, the modified *Klayman* system can resonate at thirty Hertz (30 Hz) and at sixty Hertz (60 Hz). (*Klayman*, Column 5, Lines 26-31). But sixty Hertz (60 Hz) barely reaches the lower limit of the range in *Olson* (fifty Hertz (50 Hz) to three hundred Hertz (300 Hz)). It is clear that the *Klayman* device is generally limited to low frequencies. It is also clear that the *Klayman* system must be quite large (like a pipe organ) to achieve an efficient low frequency response. The Appellant's invention does not have these limitations.

Klayman has only one speaker. The single speaker in *Klayman* is positioned so that one side of the speaker excites the air column at the closed end of the folded air column and the other side of the speaker excites the air column at the open end of the folded air column. Further, the speaker in *Klayman* must be aligned with the output port of the "pipe organ" folded air column. "The speaker axis is aligned with the center of enclosure port 20 and is directed generally perpendicular to the plane of port 20." (*Klayman*, Column 2, Lines 52-54). The Appellant's invention does not have these limitations.

The Appellant respectfully submits that one skilled in the art would not attempt to combine the apparatus and method that *Klayman* uses to obtain a low frequency response of thirty Hertz (30 Hz) with the *Olson* speaker system. The Appellant submits that a combination of the *Klayman* pipe organ structure and the *Olson* speaker system would be unworkable. The pipe organ structure of *Klayman* is not compatible with the *Olson* speaker structure. For this reason there would be no suggestion or motivation to combine the teachings of the *Klayman* reference with the teachings of the *Olson* reference.

In order to establish obviousness by combining references there must be some teaching or suggestion in the prior art to combine the references. *Arkie Lures, Inc. v. Gene Larew Tackle, Inc.*, 119 F.3d 953, 957, 43 USPQ2d 1294, 1297 (Fed.Cir. 1997) ("It is insufficient to establish obviousness that the separate elements of an invention existed in the prior art, absent some teaching or suggestion, in the prior art, to combine the references."); *In re Rouffet*, 149 F.3d 1350, 1355-56, 47 USPQ2d 1453, 1456 (Fed.Cir. 1998) ("When a rejection depends on a combination of prior art references, there must be some teaching, or motivation to combine the references.")

Evidence of a motivation to combine prior art references must be clear and particular if the trap of "hindsight" is to be avoided. *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed.Cir. 1999) (Evidence of a suggestion, teaching or motivation to combine prior art references must be "clear and particular." "Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence.'"). *In re Roufett*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed.Cir. 1998) ("[R]ejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for

piecing together elements in the prior art to defeat the patentability of the claimed invention. Such an approach would be 'an illogical and inappropriate process by which to determine patentability.'")

The Appellant respectfully submits that the alleged motivation to combine references presented by the Examiner does not meet the legal requirement to establish a finding of *prima facie* obviousness. The Appellant respectfully submits that the alleged motivation to combine references is not clear and particular. The Examiner stated that "It would be obvious to combine the two references, since both of the references are concerned with low frequencies." (May 23, 2003 Office Action, Page 6, Lines 17-18). The Appellant respectfully traverses this assertion of the Examiner. The fact that two references are concerned with the same general technical area (here, low frequencies) does not without more provide a "clear and particular" motivation to combine the references. The Appellant respectfully submits that the alleged motivation to combine references has been assumed by "hindsight" in light of the existence of the Appellant's invention.

Even if the *Olson* reference could somehow be combined with the *Klayman* reference, the combination would not teach, suggest, or even hint at the Appellant's invention as set forth in Claims 1-20. MPEP § 2142 indicates that a prior art reference (or references when two or more references are combined) must teach or suggest all the claim limitations of the invention. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not be based on an Appellant's disclosure. In the present case, the *Olson* reference and the *Klayman* reference in combination would not teach or suggest all the claim limitations of the Appellant's invention.

The Examiner also rejected Claims 2, 4, 6, 8 and 10 under 35 U.S.C. § 103(a). The Examiner stated "H. F. Olsen also teaches: Claims 2, 4, 6, 8, and 10: the partition comprises portions that form an internal vent between the first chamber and the second chamber (e.g. Fig. 4, #23)." (May 23, 2003 Office Action, Page 5, Lines 1-3). The Appellant respectfully disagrees with the Examiner's characterization of the opening 23 in partition 21 of *Olson* as an "internal vent." The opening 23 is not an internal vent as that term is used by the Appellant because *Olson* places a second loudspeaker 33 within the opening 23 and completely closes the opening 23. "A second loudspeaker 33 is mounted within the diaphragm 35 thereof covering the partition opening 23 so that it forms with the partition a closure for that opening." (*Olson*, Column 4, Lines 71-75) (Emphasis added). Therefore *Olson* does not disclose an internal vent as that term is used by the Appellant.

The Examiner also rejected Claims 13, 15, 16, 18, 20 under 35 U.S.C. § 103(a) for the same reason that Olson allegedly discloses an internal vent between a first chamber and a second chamber (May 23, Office Action, Pages 5-6). The Appellant respectfully traverses these rejections. The Appellant respectfully disagrees with the Examiner's characterization of the opening 23 in partition 21 of *Olson* as an "internal vent." The opening 23 is not an internal vent as that term is used by the Appellant because *Olson* places a second loudspeaker 33 within the opening 23 and completely closes the opening 23.

However, in order to clarify that the internal vent of the Appellant's invention is open and uncovered (i.e., not covered by a structure such as a loudspeaker) the Appellant submitted a proposed amendment to Claims 2, 4, 6, 8, 10, 13, 15, 16, 18 and 20 to recite an "uncovered internal

vent." (Proposed Amendment of July 7, 2003). The Examiner refused to enter the proposed amendment of July 7, 2003 for the reason that the amendments were "not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal." (Advisory Action of July 18, 2003, Page 1). The Appellant respectfully traverses the Examiner's refusal to enter the clarifying amendment provided in the Proposed Amendment of July 7, 2003.

However, even without the entry of the proposed clarifying amendment provided in the Proposed Amendment of July 7, 2003, the Appellant respectfully submits that the term "internal vent" as described and claimed in the patent application is sufficiently clear. The term "internal vent" inherently means an "open vent" and not a vent that is completely sealed off by a loudspeaker that blocks the free movement of air through the vent. The Appellant respectfully submits that the Examiner's interpretation of the term "internal vent" is contrary to the plain and ordinary meaning of the word "vent." Therefore, the Appellant respectfully submits that the rejections of the claims that recite an internal vent should be withdrawn.

The Appellant notes that Claims 2-8 depend directly or indirectly from Claim 1. As previously described, Claim 1 contains unique and novel claim limitations of the Appellant's invention. Therefore, Claims 2-8 also contain the same unique and novel claim limitations of Claim 1 and are therefore patentable over the *Olson* reference and the *Klayman* reference, either separately or in combination.

The Appellant notes that Claim 10 depends from Claim 9. As previously described, Claim 9 contains unique and novel claim limitations of the Appellant's invention. Therefore, Claim 10 also contains the same unique and novel claim limitations of Claim 9 and is therefore patentable over

the *Olson* reference and the *Klayman* reference, either separately or in combination. The Appellant notes that Claims 19-20 depend directly or indirectly from Claim 9. Therefore, Claims 19-20 also contain the same unique and novel claim limitations of Claim 9 and are therefore patentable over the *Olson* reference and the *Klayman* reference, either separately or in combination.

The Appellant notes that Claim 11 contains unique and novel claim limitations that are analogous to the unique and novel claim limitations of Claim 1. Therefore, Claim 11 is patentable over the *Olson* reference and the *Klayman* reference, either separately or in combination. The Appellant notes that Claims 12-18 depend directly or indirectly from Claim 11. Therefore, Claims 12-18 also contain the same unique and novel claim limitations of Claim 11 and are therefore patentable over the *Olson* reference and the *Klayman* reference, either separately or in combination.

The Appellant respectfully submits that Claims 1-20, as amended, are in condition for allowance. Allowance of Claims 1-20, as amended, is respectfully requested.

B. ARGUMENTS - Final Rejection of Claims 1-21 (37 C.F.R. § 1.192(c)(8)(v)):

For the foregoing reasons, the Appellant respectfully asserts that the final rejection of Claims 1-20 in the May 23, 2003 Office Action was improper. The Appellant respectfully requests that the final rejection of Claims 1-20 be withdrawn and that Claims 1-20 be allowed.

C. ARGUMENTS – Refusal to Enter Amendment (37 C.F.R. § 1.192(c)(8)(v)):

For the foregoing reasons and for the following reasons, the Appellant respectfully asserts that the Examiner's refusal to enter Appellant's proposed amendment dated July 7, 2003 was improper. The Examiner stated "In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., an uncovered internal vent) are not recited in the rejected claim(s)." (May 23, 2003 Office Action, Page 6, Line 19 to Page 7, Line 1). Because the Appellant amended the claims in response to the Examiner's suggestion, the Appellant respectfully submits that the Examiner should have entered the responsive proposed amendments. Further, the Appellant respectfully submits that the proposed amendments do not require a new search and that the proposed amendments place the application in better form for appeal by materially reducing or simplifying the issues for appeal.

Therefore, the Appellant respectfully requests that the final rejection of Claims 1-20 be withdrawn and that Claims 1-20 be passed to allowance.

SUMMARY

For the reasons given above, the Appellants respectfully request reconsideration and allowance of the claims and that this patent application be passed to issue.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

Date: Oct. 20, 2003

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IX APPENDIX OF CLAIMS INVOLVED IN THE APPEAL (37 C.F.R. § 1.192(c)(9))

The text of each claim involved in the appeal is as follows:

1. (Original) An acoustical enclosure comprising:

a speaker box comprising walls that enclose an acoustic chamber;

a partitioning wall coupled to interior surfaces of said walls of said speaker box, said partitioning wall dividing said acoustic chamber into a first chamber and into a second chamber;

wherein at least one wall of said walls that enclose said acoustic chamber comprises portions that form an external vent to said second chamber;

a first speaker mounted within said partitioning wall, wherein a front portion of said first speaker has access to said first chamber and a back portion of said first speaker has access to said second chamber; and

a second speaker mounted within one of said walls that enclose said acoustic chamber, wherein a front portion of said second speaker has access to air outside said speaker box and a back portion of said second speaker has access to said first chamber.

2. (Original) An acoustical enclosure as claimed in Claim 1 wherein said partitioning wall comprises portions that form an internal vent between said first chamber and said second chamber.

3. (Original) An acoustical enclosure as claimed in Claim 1 wherein said first speaker and said second speaker are connected in phase electrically.

4. (Original) An acoustical enclosure as claimed in Claim 3 wherein said partitioning wall comprises portions that form an internal vent between said first chamber and said second chamber.

5. (Original) An acoustical enclosure as claimed in Claim 1 wherein a volume of said first chamber is effectively increased due to the presence of said second speaker within one of said walls that enclose said acoustic chamber.

6. (Original) An acoustical enclosure as claimed in Claim 5 wherein said partitioning wall comprises portions that form an internal vent between said first chamber and said second chamber.

7. (Original) An acoustical enclosure as claimed in Claim 1 having a low frequency response range that extends to approximately thirty Hertz.

8. (Original) An acoustical enclosure as claimed in Claim 7 wherein said partitioning wall comprises portions that form an internal vent between said first chamber and said second chamber.

9. (Original) An acoustical enclosure comprising:

a speaker box comprising walls that enclose an acoustic chamber;

a partitioning wall coupled to interior surfaces of said walls of said speaker box, said partitioning wall dividing said acoustic chamber into a first chamber and into a second chamber;

wherein at least one wall of said walls that enclose said acoustic chamber comprises portions that form an external vent to said second chamber;

a first speaker mounted within said partitioning wall, wherein a front portion of said first speaker has access to said first chamber and a back portion of said first speaker has access to said second chamber; and

a second speaker mounted within one of said walls that enclose said acoustic chamber, wherein a front portion of said second speaker has access to air outside said speaker box and a back portion of said second speaker has access to said first chamber;

wherein said second speaker enhances acoustical performance of said acoustic chamber of said acoustical enclosure by extending a range of low frequency response of said acoustical enclosure to approximately thirty Hertz.

10. (Original) An acoustical enclosure as claimed in Claim 9 wherein said partitioning wall comprises portions that form an internal vent between said first chamber and said second chamber.

11. (Previously amended) A method for enhancing acoustical performance of a dual chamber acoustical enclosure, said method comprising the steps of:

extending a range of low frequency response of said dual chamber acoustical enclosure to approximately thirty Hertz by placing a first speaker within a partitioning wall that separates a first chamber and a second chamber of said dual chamber acoustical enclosure, wherein a front portion of said first speaker has access to said first chamber and a back portion of said first speaker has access to said second chamber of said dual chamber acoustical enclosure; and

placing a second speaker within a wall of said first chamber of said dual chamber acoustical enclosure, wherein a front portion of said second speaker has access to air outside said dual chamber acoustical enclosure and a back portion of said second speaker has access to said first chamber of said dual chamber acoustical enclosure;

wherein at least one wall of said walls that enclose said acoustic chamber comprises portions that form an external vent to said second chamber.

12. (Previously amended) A method as claimed in Claim 11 further comprising the step of:

electrically connecting said first speaker and said second speaker in phase.

13. (Previously amended) A method as claimed in Claim 11 further comprising the step of:

placing an internal vent in said partitioning wall between said first chamber and said second chamber.

14. (Previously amended) A method as claimed in Claim 11 further comprising the step of:

effectively increasing a volume of said first chamber due to the presence of said second speaker within said wall of said first chamber of said dual chamber acoustical enclosure.

15. (Original) A method as claimed in Claim 14 further comprising the step of:

placing an internal vent in said partitioning wall between said first chamber and said second chamber.

16. (Previously presented) A method as claimed in Claim 12 further comprising the step of:

placing an internal vent in said partitioning wall between said first chamber and said second chamber.

17. (Previously presented) A method as claimed in Claim 12 further comprising the step of:

effectively increasing a volume of said first chamber due to the presence of said second speaker within said wall of said first chamber of said dual chamber acoustical enclosure.

18. (Previously presented) A method as claimed in Claim 17 further comprising the step of:

placing an internal vent in said partitioning wall between said first chamber and said second chamber.

19. (Previously presented) An acoustical enclosure as claimed in Claim 9 wherein said first speaker and said second speaker are connected in phase electrically.

20. (Previously presented) An acoustical enclosure as claimed in Claim 19 wherein said partitioning wall comprises portions that form an internal vent between said first chamber and said second chamber.